Open & Interoperable UAV System Architecture

EADS
European Aeronautic Defence and Space Company

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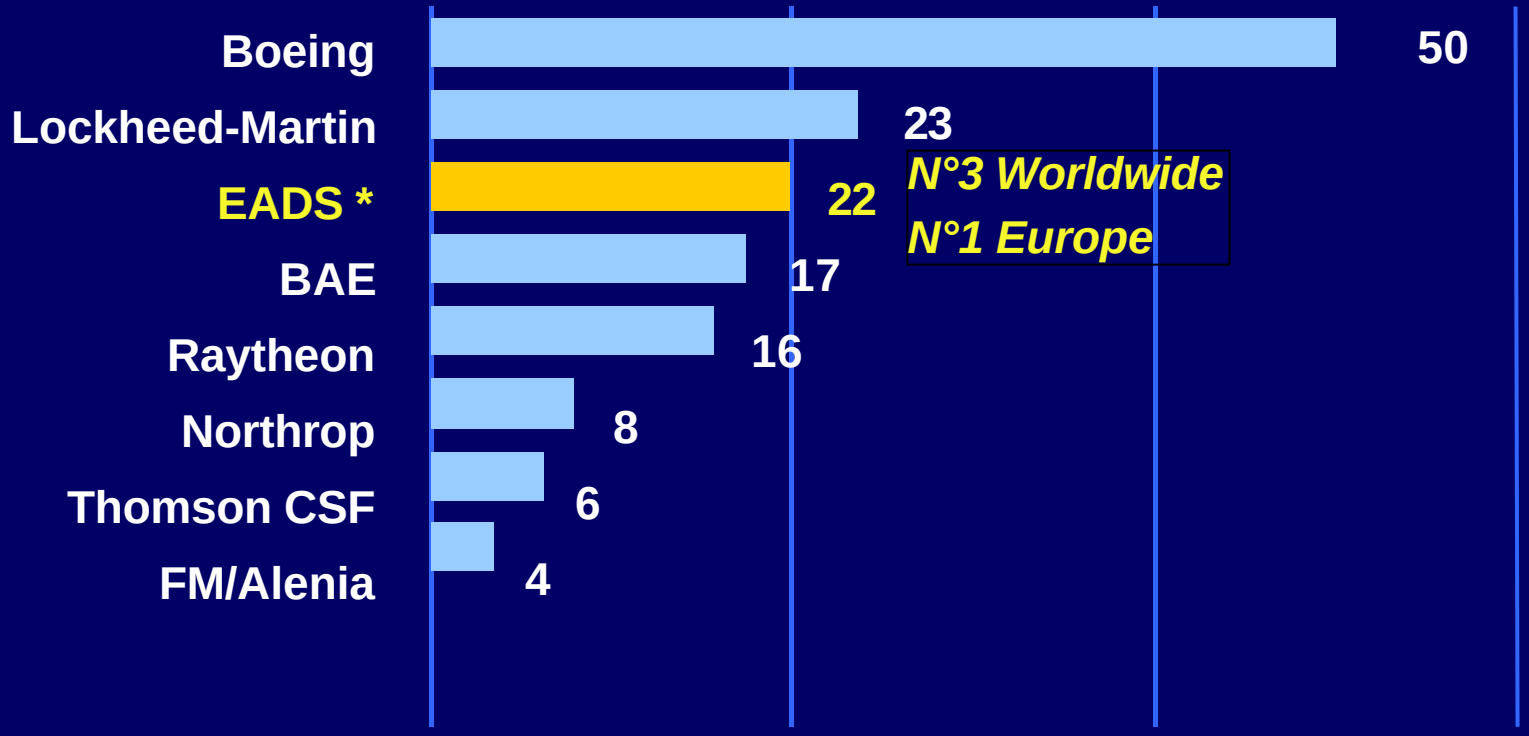
ON THE LEADING EDGE OF GLOBAL AEROSPACE INDUSTRY



Revenues 1999 (quota consolidated) in bn euros

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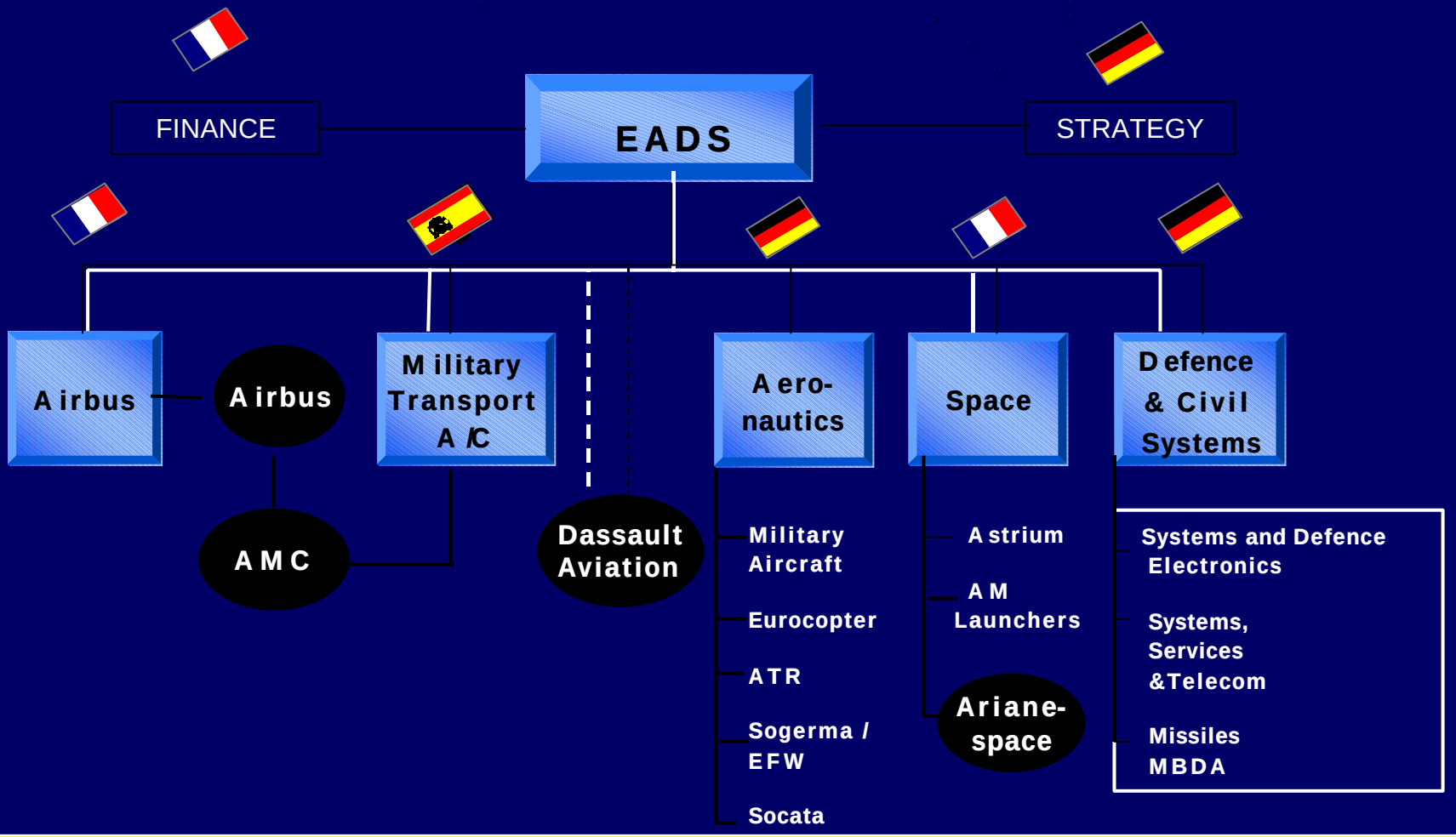
BUSINESS UNITS AND MAIN PARTICIPATIONS



Systems and Defence Electronics includes the former UAV activities from Aerospatiale, Matra, DASA and CAC Systems

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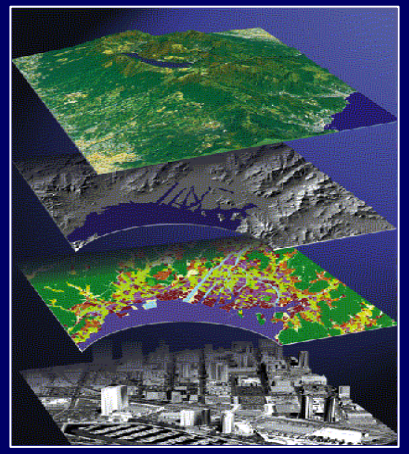
ISR
Intelligence
Surveillance
Reconnaissance

BUSINESS DEVELOPMENT

SYSTEMS

GROUND SEGMENTS

GEOMATICS



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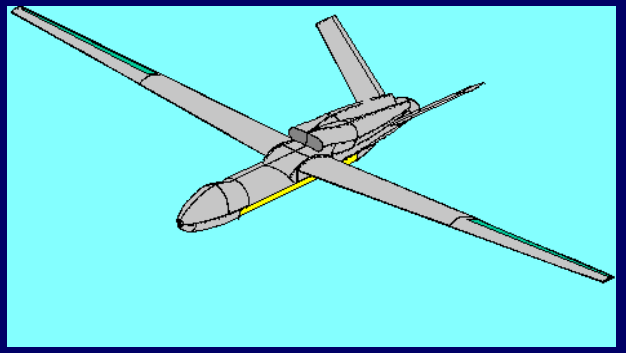
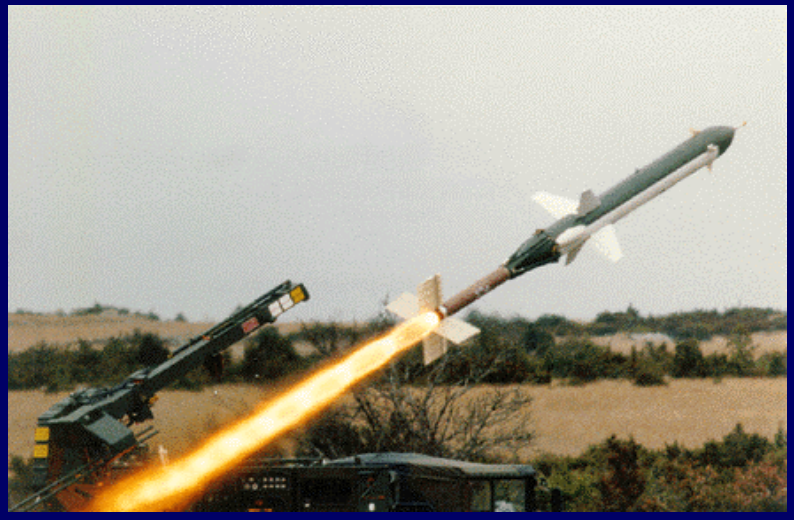
UAV SYSTEMS ON EVERY SEGMENTS

MALE



MULTIMISSION HALE



HIGH SPEED UAV

ARMY TACTICAL UAV

MARITIME UAV

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OBJECTIVES

THE CORE SYSTEM IS DESIGNED TO SUPPORT THE MAIN FOLLOWING REQUIREMENTS:

- AIRWORTHINESS AND SYSTEM CERTIFICATION
- INTEROPERABILITY
- STANDARDS RESPECT (STANAG)
- FULL EVOLUTIVITY AT LOW COST
- HIGH LEVEL OF INFORMATION MANAGEMENT AND PROCESSING PERFORMANCE
- LOW LIFE CYCLE COST

A REAL OPEN AND MODULAR ARCHITECTURE BOTH FOR AIR VEHICLE AND GROUND SEGMENT

THE TOOLS (1/2)

• A FULL REDUNDANT COMMUNICATION BUS WITH IMPLEMENTATION OF DETERMINISM AND SEGREGATION SERVICES (TO RECEIVE ALL MODULES)

• A REAL TIME OPERATING SYSTEM WITH ALL OBJECT ARCHITECTURE , COMMON FOR ALL SYSTEMS
The OS becomes a components ' assembly which is dynamically linked and provides:

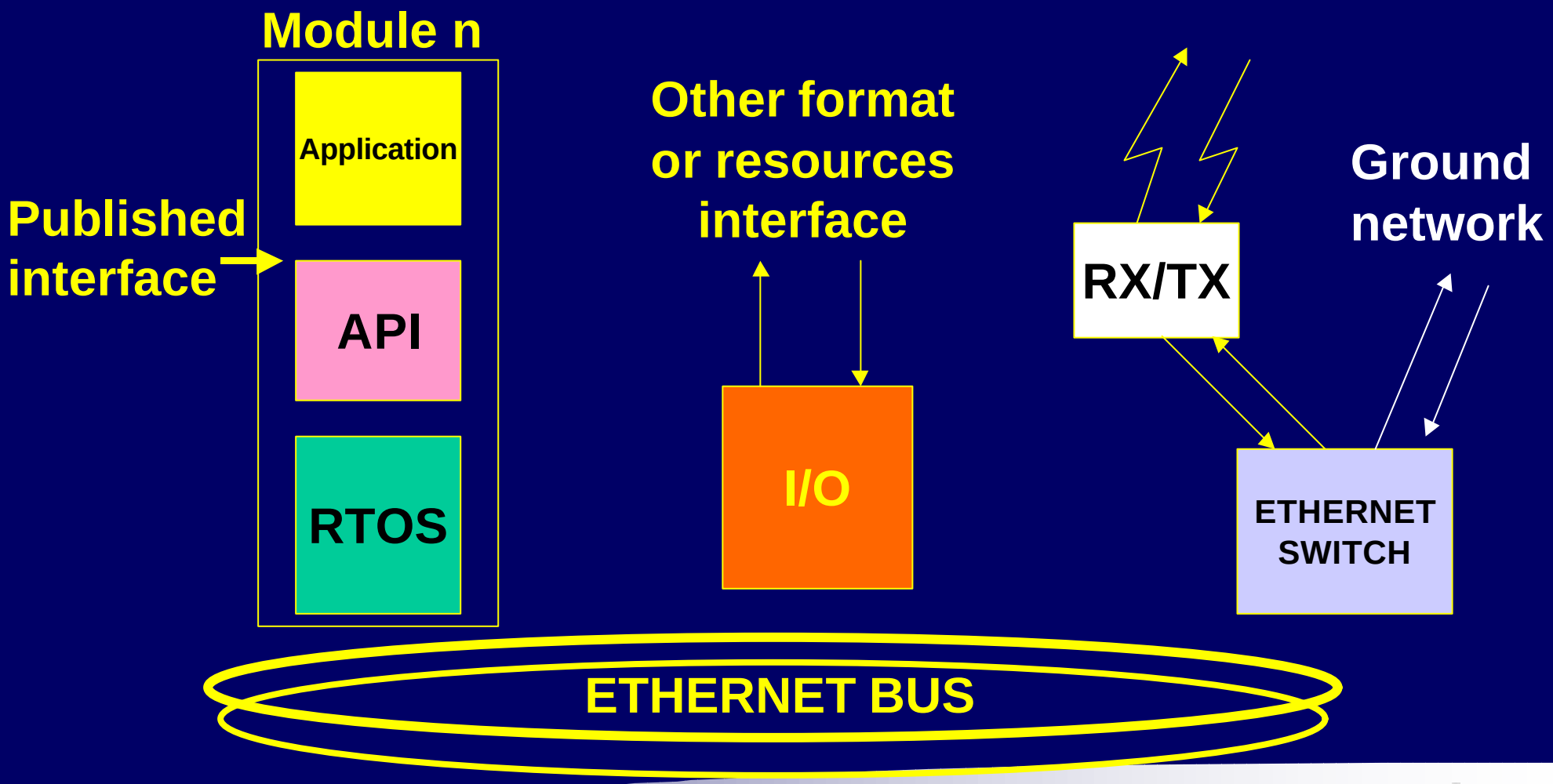
- The choice of components really needed
- Determinism and pre-emptivity
- low size code
- evolution facility and regression reduction risk (code addition without recompilation of existing or sources modification)

THE TOOLS (2/2)

- **A COMMON INTERFACE DEVELOPMENT (API) FOR EACH MODULE:**

  - **Open interface (Published format)**
  - **Set up by software**
  - **Functions or systems splitting**

INTERNET SERVER MODEL ARCHITECTURE



THE MEANS

EADS WHICH OFFERS QUITE ALL AERONAUTICAL SKILLS WILL COOPERATE WITH SME OF EXCELLENCE IN ORDER:

- **TO DEVELOP HIGH SYNERGY ON A STRUCTURANT PROGRAM**
- **TO IMPLEMENT CONTINUOUSLY HIGH TECHNOLOGY SKILLS WITH MATURE AND MASTERED PRODUCTS**

« WELCOME SINOVIA... »